INTRODUCTION

A key component in the evaluation of the quality of an institution's assets is the review of a portion or sample of those assets. Sampling is the process of selecting a limited number of assets from a large group of assets so that conclusions about the quality of the entire portfolio may be drawn from the characteristics of the sample. The objective is to limit the number of assets reviewed while still providing enough information to enable the examiner to draw and support a reliable conclusion about the portfolio without requiring a review of all of the assets. The underlying assumption is that the quality of assets in the sample is representative of the quality of assets in the portfolio. Inherent in the use of a limited sample of assets for review is the risk of sampling error (i.e., the risk that the quality of assets selected for review will not be representative of the portfolio). Generally, sampling risk is reduced by increasing the size of the sample. Large samples are costly and time consuming, so examiners must balance the risk of sampling error against the costs of using large samples. This Section provides several sampling methods to allow examiners to limit the number of assets reviewed while mitigating sampling risks. The application of the guidance in this Section will reduce the likelihood of significant sampling error and will also enable examiners to:

- Select a representative sample of assets for review;
- Determine if the institution is in compliance with both safety and soundness standards and its underwriting policies;
- Analyze the level of reliance that can be placed on the institution's Internal Asset Review (IAR) program for the purpose of including the results of the IAR program in meeting minimum examination review coverage standards; and
- Determine if an expansion of the asset classification review is needed.

As discussed in other chapters of the Thrift Activities Regulatory Handbook, examiners, in addition to performing a review of individual assets and loan files, should base their final assessment of the quality of the portfolio on factors that include the following:

- the adequacy of the institution's underwriting policies and procedures;
- an evaluation of portfolio performance and credit quality;
- the experience and training of personnel; and
- the adequacy of the institution's pre- and post-funding quality control reviews and other internal controls related to the portfolio.

Examiners should use different methodologies for the sampling and testing of two different asset types: homogeneous and non-homogeneous assets. For the purpose of this Handbook Section, "homogeneous assets" are those that amortize monthly and are typically underwritten based on common, uniform standards. They include one- to four-family residential real estate loans, home improvement loans, home equity loans, owner-occupied mobile home loans, amortizing residential property loans, consumer installment loans and leases, credit card balances, personal overdrafts, and loans on deposits. Because homogeneous assets are generally classified based on delinquency status, the examiner's sampling should be directed to the determination of whether the institution uses prudent underwriting standards, rather than the IAR program's classification of such assets.

"Non-homogeneous" assets are those where underwriting criteria are less likely to be uniform and where classification decisions are based on broader considerations than just the delinquency status. Non-homogeneous assets include commercial real estate, commercial, and construction loans; private placement, non-rated, and belowinvestment-grade municipal and corporate securities; and other investments (i.e., all assets other than homogeneous assets, cash, high-quality government securities, and high-quality mortgage-backed securities). For these assets, the examiner should use sampling to develop conclusions regarding two issues: first, the quality and reliability of the institution's IAR program for the purpose of including the results of the IAR program in meeting minimum examination sampling coverage standards and, second, the quality of the institution's underwriting standards.

The rest of this Section discusses sampling methodologies for homogeneous assets; sampling methodologies for non-homogeneous assets; review of previously examined assets; and requirements for documenting the sampling method used in the work papers and the Report of Examination (ROE).

Note: Examiners should exclude from their sample, loans made by an eligible institution under the March 30, 1993, "Interagency Policy Statement on Documentation for Loans to Small- and Medium-Sized Businesses and Farms." Under that Policy Statement (the provisions of which were incorporated into OTS Regulation 563.170(c)(10)), institutions that are well- or adequately capitalized under Section 38 of the Federal Deposit Insurance Act (Prompt Corrective Action) that have a composite rating of 1 or 2, are permitted to identify a portion of their portfolio (equal to 20% of their total capital) of small- and medium-sized business and farm loans that will be exempt from examiner review of documentation. Certain 3-rated institutions can apply to use this authority. Institutions should have a written list of the loans assigned to this "exempt portion" of the portfolio. Examiners should review 563.170(c)(10) to ascertain the eligibility requirements and other related factors.

SAMPLING METHODOLOGIES FOR HOMOGENEOUS ASSETS

To determine if loans reviewed are made in accordance with the institution's own underwriting standards, examiners must first review the institution's loan underwriting and asset acquisition policies and internal controls for adequacy. Examiners should also evaluate the structure, administration, scope, and results of the institution's IAR program for homogeneous assets. The IAR program should follow the classification requirements applicable to "slow loans" and "slow consumer loans" discussed in Section 260 of this Handbook.

For homogeneous assets, examiners should sample the assets to detect any asset quality problems that result from poor underwriting standards. Because the examiner will be looking to draw a conclusion about the whole portfolio, the assets selected for review should not be limited to only those underwritten since the last examination. With respect to loans made since the previous examination, examiners should determine if the institution is using prudent underwriting standards and is exercising proper lending controls. With respect to loans made in prior periods, examiners will generally evaluate asset quality by reviewing loan performance history. If seasoned loans are paying as agreed, examiners will forego further review of the asset. If loans are not paying as agreed, examiners will determine the cause of the delinquency, such as poor underwriting or local economic factors, and evaluate the effect that such factors have on the institution's asset quality.

Asset quality problems that result from declining economic conditions will not be considered exceptions unless poor underwriting contributed to the delinquency. However, examiners should factor in the effect that well-underwritten delinquent loans may have on the institution's overall asset quality.

Examiners should also be able to conclude whether the institution is sufficiently complying with applicable regulations and policies. Exhibits 1 and 2 illustrate the decision-making process in sampling homogeneous assets.

As the examiner is seeking to ascertain the quality of the asset portfolio that poses a potential risk to the institution, the examiner should include in the population loans sold with recourse.

Systematic Sample Selection

Initial Sample: For purposes of the review of homogeneous assets, the examiner should generally use numerical interval sampling (described in Appendix D) to select a systematic sample of assets. The sample should not be limited by origination date or performance.

Exhibit 1
Sample Size Selected for Homogeneous Assets

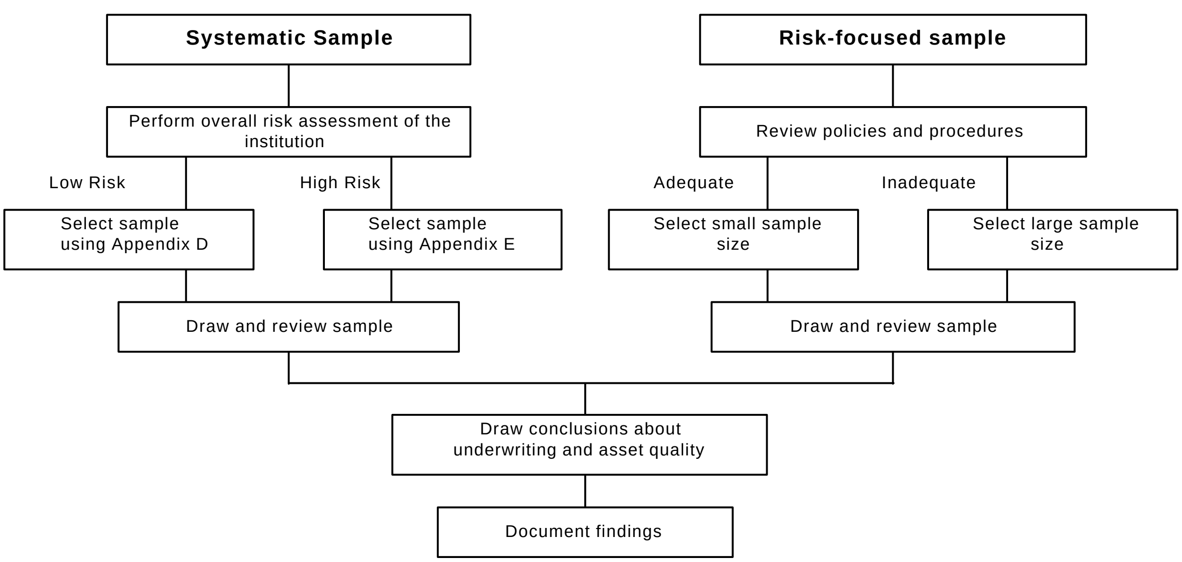
Institutional Risk Profile	Low Risk	High Risk
Adequate Underwriting Policies and Controls	**Minimum**	**Larger**
Inadequate Underwriting Policies and Controls	**Larger**	**Largest**

The above chart shows the level of asset review required under different conditions.

The first block on the left shows that for low-risk institutions with adequate underwriting policies, only a minimum number of assets need to be reviewed.

The lower block on the right indicates that for high-risk institutions with poor underwriting policies, the largest number of assets need to be reviewed.

Exhibit 2
Sample Selection for Homogeneous Assets



Risk-Focused (Judgmental) Sample Selections

In addition to the use of numerical interval sampling, it may be appropriate for the examiner to also select and review a judgmental sample if significant subcategories of assets are not covered by the systematic sample or for other purposes, if determined to be appropriate by the examiner.

After selecting the initial sample of assets as outlined in Appendix D, the examiner should determine whether all significant subcategories of assets are included in the asset sample. The selection of subcategories should be based on an assessment of the riskiness of various subcomponents of the portfolio and the degree of difference in underwriting standards used by the institution for the subcategories. Examiners should seek to include in the total sample (both systematic and judgmental) assets from each significant subcategory of assets for which the thrift has separate underwriting procedures and controls, whether such procedures are written or not.

The institution's internal auditors may provide valuable advice in determining control points in the approval process and determining significant subcategories. Examiners should consider including each of the following subcategories in judgmental samples of homogeneous assets:

- Loan types for which exceptions were reported in the last examination;
- Loans originated by new personnel;
- Loan types where loan volume has increased dramatically;
- Loans sold with recourse; and
- New loan products.

Examiners should use their best judgment and ensure that their sample of homogeneous assets is sufficient to assess underwriting practices and asset quality.

Review of Sample

The selected homogeneous assets should be reviewed by the examiner to ascertain whether the loans made during the review period were underwritten in a prudent manner and in compliance with the institution's policies. (As stated previously, seasoned loans should be evaluated based on their performance history.) For example, for a loan fully secured by a deposit at the institution, the examiner generally only needs to ascertain that the loan is legally secured to satisfy himself/herself that the loan is prudently underwritten. For determining whether an asset is underwritten in a prudent fashion, the examiner should focus on the overall quality of the asset, not merely on documentation. An exception should only be noted if it is material. Note that the underwriting policies of institutions often allow for deviations from the general standards. For example, an institution may have generally applicable debt-to-income ratios for home mortgage loans, but may allow borrowers to exceed those ratios if the loan has other credit strengths such as a low loan-to-value ratio.

For institutions with prudent underwriting standards, examiners should first focus on whether the assets comport with the institution's underwriting policies. Secondly, the examiner should, for any asset that differs from the institution's general standards, review whether the asset is prudently underwritten. "Exceptions," for homogeneous assets, refers only to assets that do not comport with safe and sound lending standards, even if the asset does not adhere to the institution's general underwriting standards, as there are often legitimate reasons for an institution to deviate from its written standards. The definition of "Exception" in Appendix A provides further guidance on reviewing older homogeneous assets.[1]

Appendix D provides additional guidance on expanding the systematic sample of homogeneous assets if exceptions are found. Appendix D also provides guidance on drawing conclusions based on the review of the systematic sample.

If more than the allowable number of exceptions are found within the initial systematic sample of 15 assets, further sampling may help determine if

[1] The sample sizes discussed in this Section should be reduced for institutions with a small number of loans in the population being reviewed. The formula to reduce the sample size is shown in Appendix C.

there is a trend and whether material noncompliance with regulation and policy has, in fact, occurred. If management claims that a significant underwriting exception is an isolated incident, examiners may want to verify this by conducting further sampling. If there is a general pattern of noncompliance with policies and regulations, it is not necessary to fully determine the exact frequency of such noncompliance.[2]

Rather than continuing to enlarge the sample to find every exception, the examiner should focus on why the exceptions occurred, conduct any additional examination procedures needed, and recommend corrective action.

Review of Classifications

Examiners should confirm that the institution's classifications of homogeneous assets are based primarily on delinquency status.

All "slow loans" and "slow consumer credit" – as defined in regulations §§ 561.13, 561.47, and 561.48 – should be considered for classification in accordance with instructions in Handbook Section 260, Classification of Assets.

In addition to the homogeneous assets sampled, examiners should review for classification:

- Homogeneous assets (or commitments) that are unusually large in relation to their portfolios, because these assets are exceptions to the norm and may be incorrectly categorized (e.g., they may be commercial loans); and
- Assets that are related to non-homogeneous assets (such as loans to the same obligors, principals, guarantors, or otherwise for their benefit).

If the review of homogeneous assets reveals a high credit risk group (such as poorly underwritten mobile home loans), that group should be included in the sampling and review procedures for non-homogeneous assets. If such assets are in a very high dollar volume, dollar-proportional sampling, described in Appendix B, is recommended.

SAMPLING METHODOLOGIES FOR NON-HOMOGENEOUS ASSETS

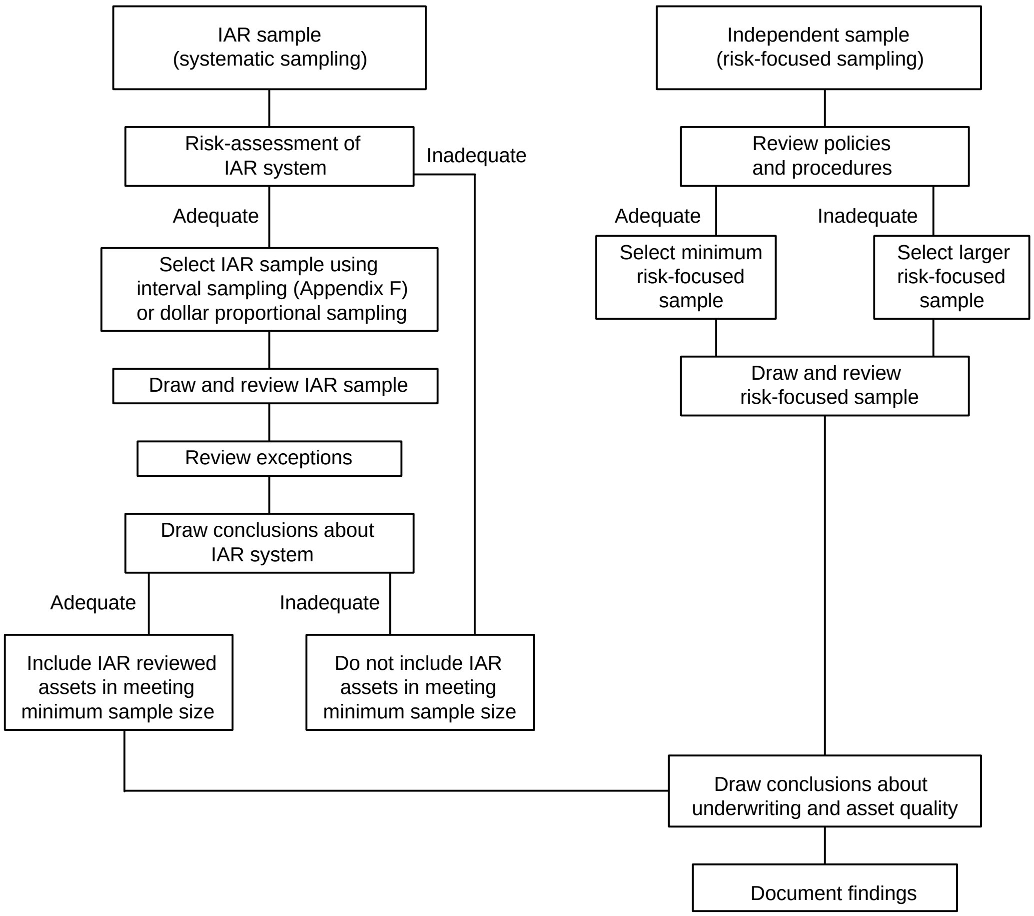
Similar to the sampling of homogeneous assets, in order to determine the quality of the asset portfolio, examiners should sample non-homogeneous assets to ascertain whether the institution is applying prudent underwriting standards and is complying with applicable regulations and policies. Exhibit 3 illustrates the decision-making process in sampling non-homogeneous assets.

Examiners must first review the adequacy of the institution's policies for underwriting and acquiring assets as well as the internal controls in these areas. If an institution has adequate policies, procedures, and controls, then the examiner should use the minimum sampling requirements outlined below to draw conclusions about the institution's asset quality. If, however, an institution has inadequate or nonexistent underwriting policies, procedures, and controls, then the examiner must review a larger sample of assets to ascertain asset quality.

Sampling of non-homogeneous assets should start with an estimate of the extent of adverse classification based on the previous examination report, internal classifications, past-due loan history, and lending policies and procedures. Based on the expected condition of the assets, an initial coverage range should be set for the review of the entire non-homogeneous portfolio. The combined sequential and independent samples should, at a

[2] The difference in the initial sample sizes of 15 or 22 for homogeneous assets is due to the difference in the degree of precision OTS will seek for low-risk versus high-risk institutions (as explained in the "Sampling Methodologies for Homogeneous Assets" Section). The differences in the initial sample sizes for homogeneous and non-homogeneous assets is due to the difference in the degree of confidence or reliability we can place on the sample results. Due to the higher risk nature of non-homogeneous assets, the sample size for non-homogeneous assets was selected to give the examiner a 95% confidence level that the IAR program meets the reliability standards established in this Section. For homogeneous assets, which generally pose a lower risk to institutions, the sample size was selected to give the examiner a 90% confidence level (reliability) that the pool of assets are underwritten in a prudent fashion.

Exhibit 3
Sample Selection for Non-Homogeneous Assets



minimum, total 30% to 50% of the aggregate dollar volume of non-homogeneous assets. The 30% minimum should be used only at the outset of reviews where risk is minimal and conditions ideal, such as in thrifts with excellent policies and controls, a history of no significant asset quality problems, and little recent growth. If the review of the institution's IAR program results in an acceptable number of exceptions, assets included in the IAR program are to be included in meeting this minimum examination sampling coverage standard.

Examiners are to sample two different populations for non-homogeneous assets. First, examiners are to sample assets reviewed by the institution under the institution's IAR program, to determine whether the IAR program is reliable for the purpose of including the results of the IAR program in meeting minimum examination sampling coverage standards. Second, examiners are to sample a relatively large sample of the non-homogeneous assets (including those not included in the IAR program) to ascertain asset quality. This second sampling requirement is referred to as "independent" sampling.

The examiner is expected to sample, at a minimum, 30% of the dollar amount of the non-homogeneous assets. This standard contrasts with homogeneous assets, where there is no minimum sampling percentage that must be achieved. This minimum sampling coverage standard is discussed more fully below.

Evaluation of Internal Asset Review Programs

After a review of the adequacy of the institution's policies for underwriting and acquiring assets (as well as the internal controls in these areas), the examiner should evaluate the institution's IAR program that makes the institution's final classification determinations.

Examiners should assess the structure, administration, scope, and results of the institution's IAR program at each examination that includes a review of asset quality. The institution's IAR program must include frequent sampling of all asset types and result in the internal identification of all major portfolio problems and an accurate assessment of overall asset quality. The examiner should review the institution's documentation of its IAR program's sampling process to ensure that all asset types were adequately sampled.

The IAR program should sufficiently assess risk of loss so that an institution's management may determine appropriate levels of specific and general allowances. Thrift Activities Handbook Section 210, Lending Risk Assessment, and Attachment 1 of Appendix A to Section 261, Adequacy of Valuation Allowances, provide further guidance for evaluating IAR programs.

Examination Use of Internal Classifications

If the structure, administration and scope of the IAR program are deemed to be sufficient, then examiners should sample and test internal classifications for reliability. (Instructions for sampling internal classifications using numerical interval sampling are provided in Appendix E.) If, after analyzing this sample, the examiner determines that the IAR program is reliable, all internally reviewed assets can be included in meeting the 30% minimum examination sampling coverage standard.

If the examiner determines that the IAR program is unacceptable due to its structure or administration, or the internal classifications have more than the allowable number of exceptions when compared to the regulator's classifications, then the examiner should proceed with an independent sampling of assets (discussed below). In such cases, only the assets reviewed by examiners should be included in the minimum examination sampling coverage standards. In order to initiate corrective action, IAR program deficiencies should be discussed with management, in the ROE, and in the meeting with the board of directors.

If examiners determine that an IAR program is severely inadequate, examiners should consider postponing the asset review to allow corrections to be made if it would be a more efficient use of resources and prudent to do so. Such action should only be undertaken in extreme cases, with senior Regional officials' prior approval. Examiners should then comment in the ROE, advise thrift management and directors of IAR program deficiencies noted, and inform them that examiners will return within a specified period to assess whether the deficiencies have been corrected.

It is important to apply this postponement strategy judiciously. If the thrift is financially distressed or is in danger of failing, the asset classification review should not be postponed. It is also important to give thrift management only a minimal time horizon to correct the deficiencies. Examiners must perform a prompt and thorough follow-up review to ensure the success of this strategy. Formal enforcement action, including civil money penalties, should be considered for thrifts failing to correct significant IAR program deficiencies.

IAR program findings for individual assets may be used for examination purposes if individual analyses are found to be reliable, even when the IAR program is incomplete or has deficiencies, such as when the IAR program does not include reviews of insider loans or does not include reviews of loans less than 90 days old. Although an IAR program may be incomplete or inaccurate in some respects, it may serve to inform examiners of problems a thrift has recognized.

Sampling Internally Reviewed Non-Homogeneous Assets

Internal classifications may be sampled to test for acceptance in examination reviews by one of two methods: dollar-proportional sampling and numerical interval sampling. The dollar-proportional methodology is explained more fully in Appendix B; numerical interval sampling for IAR-reviewed assets is explained more fully in Appendix E. Note that if the examiner uses the dollar-proportional sampling methodology to review the IAR program, the sample must contain no exceptions to be acceptable.

Independent Sampling of Non-Homogeneous Assets

In addition to a review of the assets reviewed under the institution's IAR program, the examiner should undertake a review of an independent sample.

Generally, examiners are expected to perform an independent sample even when an institution's IAR is found to be acceptable and the IAR function has reviewed a level of the institution's non-homogeneous assets that is greater than the level set by the examiner as the desired level of review.

In such cases, the level of review performed by examiners will depend on whether the sampling of IAR assets adequately covered all of the various types of non-homogeneous assets.

Since the IAR sample is randomly selected, it is not likely to include a sufficient cross-section of large loans, certain high-risk loan types, or loans to borrowers that may be near the institution's legal lending limit.

Such loans must be reviewed in the independent sample. For example, if the IAR sample did not pick up any construction or land loans, or other types of non-amortizing loans, then the examiners should review some of the larger non-amortizing loans of this type. Also, if the IAR sample did not include a representative number of loans to the largest borrowers, then the examiners should include such loans in the independent sample. There are often other loans that the independent sample should include as well, such as modifications of large loans or borrowers who have business relationships with thrift directors or officers that were not included in the original sample.

If, however, the IAR sampling performed by the examiners covered the various types of non-homogeneous lending the thrift engaged in, then there may be good reason to limit the size of the independent sample. It is the examiner's responsibility to determine the level and scope of the independent sample.

Expanding the Scope of the Independent Sample

As the examination progresses and the examiner assesses the extent of the thrift's risk of loss, the examiner may need to expand the independent sample size to ensure sufficient review of credit quality. If additional review increases adverse classifications and the need for loss recognition by a material amount (for example, if adverse classifications exceed 50% of GAAP equity capital), the examiner should increase the sample size. If a thrift is suspected of having severe asset quality problems, examiners may need to review 65% to 85% or more of the dollar volume of the non-homogeneous assets. Sampling of these assets should be sufficient to determine the extent of credit quality problems, since any problems will affect valuation allowances and capital. It is usually of little benefit, however, to continue to adversely classify assets once the institution is determined to be tangibly insolvent, other than to ascertain capital levels to a material degree.

When the review of additional assets would not materially increase adverse classifications, loss recognition, or otherwise influence anticipated supervisory decisions, the sample is adequate. At some point, as the sample is increased, the risk in the remaining assets in relation to tangible capital is immaterial. It is up to the examiner's discretion to determine this point.

Independent Sampling Methodologies

Examiners should use either the minimum cut-off or dollar-proportional method to independently select the sample of non-homogeneous assets. Where examiners have used numerical interval sampling to accept the results of an institution's IAR program, examiners should include in their independent samples a review of all assets that have a book value equal to or greater than 5% of GAAP equity capital.

The independent sample should not be limited by origination date or performance. To target the groups of assets that are the most likely to warrant adverse classification in material amounts, the sample should be supplemented by judgmental selections of assets with high risk of material loss.

The examiner can include in the independent sample assets that were reviewed by the institution under its IAR program but that were not selected in the sample used to assess the IAR program. If the examiner had concluded that the IAR program is reliable and, as part of the independent sample, the examiner reviews these assets and finds that there are a significant number of exceptions between the institution's classifications of these assets and the classifications of the examiner, the examiner should carefully reconsider whether the IAR program is reliable. If the results of the independent sample present a more accurate assessment about the reliability of the IAR program, the examiner should use that conclusion.

General guidance for dollar-proportional, minimum cut-off and judgmental sampling is included in Appendix B and includes a discussion for using the dollar-proportional method for independent sampling.

Review of Independent Sample

The selected assets should be reviewed by the examiner to ascertain whether the assets were underwritten in a prudent manner and in compliance with the institution's policies. An exception should only be noted if it is material. The examiner should also use these reviews to determine appropriate classifications of the sampled assets. Examiners should use the guidance provided in the other Asset Quality sections of the Handbook to assess whether the selected assets were prudently underwritten.

REVIEW OF PREVIOUSLY EXAMINED ASSETS

Analysis of previously examined assets should generally be limited to a quick review of the previous examination line sheets, current performance, and new file information for indications of a material change in the condition or cash flow of the obligor or the collateral. The current balance, performance information, and current financial data should be updated on the previous examination line sheets. In most instances, a quick review of the updated line sheet will be all that is needed to properly classify the asset again.

ASSET REVIEW DOCUMENTATION

Documentation should be in adequate detail to help examiners sample assets for review in the next examination, and should identify records used as a basis for sampling, such as: IAR schedules, alphabetical trial balances, customer information file printouts, and loans-to-one-borrower lists. Work papers must include a description of methods and criteria used to select samples, including the cut-off amounts and initial and supplementary sampling techniques. Documentation should be sufficient to allow a reviewer to identify the assets reviewed, understand the rationale for the selection of assets, and determine the percentage of assets reviewed for each portfolio, the overall coverage of non-homogeneous assets and any exceptions that are found. Information sources, such as officers, credit reports, etc., should be identified if not obvious.

The percent of dollar volume of non-homogeneous assets reviewed by examiners (including the assets reviewed under the IAR program, if tested and found reliable for the purpose of including the results of the IAR program in meeting minimum examination sampling coverage standards) should be included on the lead sheet of the line sheet deck of line sheets and in the asset quality scoping comments in the ROE.

As indicated in the Thrift Activities Asset Review Line Sheets Instructions, examiners should record enough information on each reviewed asset to clearly identify the asset and to arrive at a final defensible classification. Each asset review should only be thorough enough for proper classification. Examiners should attempt to find and record only enough information to pass an asset or, if unable to pass it, record enough information to classify it. The line sheets are not needed when the thrift can provide an adequate substitute such as history cards or IAR worksheets.

REFERENCES

United States Code (12 USC)

Home Owners' Loan Act

§ 1463(c)	Stringency of Standards

Code of Federal Regulations (12 CFR)

Subchapter D: Regulations Applicable to All Savings Associations

§ 561.13	Consumer Credit Classified as Loss
§ 561.47	Slow Consumer Credit
§ 561.48	Slow Loans
§ 563.160	Classification of Certain Assets
§ 563.170	Establishment and Maintenance of Records

Office of Thrift Supervision Publications

Thrift Activities Asset Review Line Sheets Instructions (July 1994)

Interagency Policy Statement on Documentation for Loans to Small- and Medium-Sized Businesses and Farms (March 30, 1993)